

RENEWABLE ENERGY

CIAT AIRTECH AHUS CHOSEN FOR PIONEERING SEAGREEN OFFSHORE WIND TURBINE PROJECT



'EXCELLENT'

Chris McCall, Operations Director for MHSL Services, said, "The HVAC design relies on varying the temperature via the AHUs to increase or decrease humidity, which is where the excellent control system on the ClimaCIAT™ AirTech units comes into its own. It came in three or four sections which we bolted together and added the controls, the process was fairly straightforward. I find CIAT products to be second to none, they are very reliable and withstand the test of time."

Scotland's Biggest Offshore Wind Project

Seagreen, Scotland's biggest offshore wind project, has chosen high efficiency ClimaCIAT™ AirTech air handling units (AHUs) to manage temperature and humidity in the transformer rooms of the multi-billion pound development's substation.

The project, 27km off the coast of Angus in the North Sea, is a £3bn joint venture between TotalEnergies and SSE Renewables, and once complete will be Scotland's largest and the world's deepest offshore wind farm.

Electricity generated by the wind turbines is transmitted via subsea cables to landfall at Carnoustie, then on to the Tealing substation via 19km of underground cables. The substation will convert the power up to 400kV for feeding into the national electricity grid, in the process generating significant quantities of heat.

High Specification ClimaCIAT AirTech AHUs

Six high specification ClimaCIAT AirTech AHUs were installed to control temperatures in the transformer rooms, two units in each of the three substation buildings, in a 'run and standby' set-up where three run for a week then are swapped for the other three. This ensures standby units are always available in the event of an outage, and that all units have equal run-time to maximise working life. The modular AHUs, equipped with high-grade filters to help support indoor air quality, will maintain optimum year-round climate conditions to ensure the transformers operate at peak efficiency. CIAT supplied two matched condensing units per AHU.

'IT'S A WIN-WIN'

Stephen Munn, CIAT Regional Sales Manager – South London, said, "ClimaCIAT AHUs provide a complete ventilation solution for all buildings, whether in the public or private sector.

"In addition to providing excellent comfort levels and reliability, their efficiency ensures reduced carbon emissions and lower running costs throughout the lifetime of equipment. "On both environmental and economic grounds, they deliver a win-win."

AHUs Meet Efficiency and Performance Requirements



CIAT's ClimaCIAT® AirTech AHUs control temperatures in the transformer rooms for Seagreen

CIAT's innovative ClimaCIAT AHUs are all Eurovent certified, meeting the latest efficiency and performance requirements under the Ecodesign Directive.

The AHUs are equipped with an advanced intelligent electronic control system, enabling them to be connected to building management systems to optimise performance and efficiency as part of a total building support system.

This includes fine control of temperature and humidity levels and the management of fans, filter fouling levels and heat exchange coils.

The control system is fully integrated into each unit, including wiring and sensors, and can be easily selected and configured using the dedicated software and tools.

The AHUs dissipate heat produced by the transformers and other electrical equipment and maintain humidity levels within strict limits to ensure optimum performance of the substation.